








L Number	Hits	Search Text	DB	Time stamp
1	1	("6143461").PN.	USPAT; US-PGPUB	2003/05/17 17:24
2	1	("6048911").PN.	USPAT; US-PGPUB	2003/05/17 17:24
3	2	ep-921438-\$.did.	EPO; JPO; DERWENT	2003/05/17 17:30
4	1	("5096801").PN.	USPAT; US-PGPUB	2003/05/17 17:32
5	1	("4952478").PN.	USPAT; US-PGPUB	2003/05/17 17:34
6	1	("4310615").PN.	USPAT; US-PGPUB	2003/05/17 17:34
7	0	gb-20044788-\$.DID.	EPO; JPO; DERWENT	2003/05/17 17:35
8	2	gb-2044788-\$.DID.	EPO; JPO; DERWENT	2003/05/17 17:44
9	1	("5641608").PN.	USPAT; US-PGPUB	2003/05/17 17:56
10	1559	LAURYL ADJ PEROXIDE	USPAT; US-PGPUB	2003/05/17 17:56
11	79	LAURYL ADJ PEROXIDE and (photopolym\$)	USPAT; US-PGPUB	2003/05/17 18:29
12	627	aronix	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:29
13	110	aronix same (m315 or m adj "315")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:50
14	273	430/283.1.ccls. and solid	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:50
15	117	430/283.1.ccls. and solid and allyl	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:55
16	27	430/283.1.ccls. and solid same monomer and allyl	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:51
17	90	(430/283.1.ccls. and solid and allyl) not (430/283.1.ccls. and solid same monomer and allyl)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/17 18:55
-	2	ep-924570-\$.did.	EPO; JPO; DERWENT	2003/05/17 17:23
-	1	fr-2001985-\$.did.	EPO; JPO; DERWENT	2003/05/17 12:52
-	1	("5362605").PN.	USPAT; US-PGPUB	2003/05/17 12:52
-	2	jp-02161443-\$.did.	EPO; JPO; DERWENT	2003/05/17 12:55
-	2	jp-02161442-\$.did.	EPO; JPO; DERWENT	2003/05/17 14:36
-	1	("4950580").PN.	USPAT; US-PGPUB	2003/05/17 12:56
-	261719	benzoin same maximum absorption	USPAT; US-PGPUB	2003/05/17 13:14


-	12	benzoin same maximum adj absorption	USPAT; US-PGPUB	2003/05/17 13:43
-	108	430/281.1-288.1.ccls. and cold adj flow	USPAT; US-PGPUB	2003/05/17 13:43
-	119	430/281.1-309.ccls. and cold adj flow	USPAT; US-PGPUB	2003/05/17 13:43
-	84	(430/281.1-309.ccls. and cold adj flow) and solid	USPAT; US-PGPUB	2003/05/17 13:44
-	1	ep-48836-\$.did.	EPO; JPO; DERWENT	2003/05/17 14:37
-	1	1982-28918E.NRAN.	DERWENT	2003/05/17 14:37
-	0	wo-48836-\$.did.	EPO; JPO; DERWENT	2003/05/17 14:39
-	0	wo-0048836-\$.did.	EPO; JPO; DERWENT	2003/05/17 14:38
-	0	wo-0048836-\$.did.	EPO; JPO; DERWENT	2003/05/17 14:39
-	0	ioncryl\$5 adj "50"	EPO; JPO; DERWENT	2003/05/17 14:51
-	0	ioncryl\$5 adj "50"	USPAT; US-PGPUB;	2003/05/17 14:51
-	2	ioncryl\$5 adj "683"	EPO; JPO; DERWENT	2003/05/17 14:51
-	2	ioncryl\$5 adj 683\$5	USPAT; US-PGPUB;	2003/05/17 16:16
-	3	2002011165.pn.	EPO; JPO; DERWENT	2003/05/17 16:31
-	0	2002011165.pn.	USPAT; US-PGPUB	2003/05/17 16:32
-	0	("2002011165").PN.	USPAT; US-PGPUB	2003/05/17 16:32
-	0	("200211165").PN.	USPAT; US-PGPUB	2003/05/17 16:33
-	370	aoshima.inv.	USPAT; US-PGPUB	2003/05/17 16:34
-	0	"200101165"	USPAT; US-PGPUB	2003/05/17 16:34
-	2	jp-2001324798-\$.did.	USPAT; US-PGPUB;	2003/05/17 16:37
-	0	wo-0020926-\$.did.	EPO; JPO; DERWENT	2003/05/17 16:37
-	1	ep-1121623-\$.did.	USPAT; US-PGPUB;	2003/05/17 16:40
-	1	("6025410").PN.	EPO; JPO; DERWENT	2003/05/17 16:41
-	1	("5886136").PN.	USPAT; US-PGPUB	2003/05/17 16:47
-	1	("5080999").PN.	USPAT; US-PGPUB	2003/05/17 16:47

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**ben·zyl**

[\(click to hear the word\)](#) (bɛnˈzɪl, -zəl')

*n.*

The univalent radical  $\text{C}_6\text{H}_5\text{CH}_2\cdot$ , derived from toluene.

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d his

(FILE 'HOME' ENTERED AT 12:42:45 ON 17 MAY 2003)

FILE 'REGISTRY' ENTERED AT 12:42:50 ON 17 MAY 2003

L1	0 S N CYCLOHEXYLACRYLAMIDE/CN
L2	10 S N CYCLOHEXYLACRYLAMIDE
L3	14 S 3066-72-6/CRN
L4	1 S 3066-72-6

FILE 'CA' ENTERED AT 12:44:09 ON 17 MAY 2003

L5	76 S L3 OR L4
L6	14 S L5 AND PHOTO?
L7	71 S COLD FLOW AND PHOTO?
L8	0 S L7 AND L6
L9	6 S L7 AND SOLID
L10	37 S CYCLOHEXYLACRYLAMIDE
L11	3 S L10 AND PHOTO?
L12	0 S L11 NOT L6

=> Log y

L6 ANSWER 2 OF 14 CA COPYRIGHT 2003 ACS

AN 135:20669 CA

TI Radiation-curable resin compositions and their use in spacers of liquid-crystal display devices

IN Ogasawara, Shoji; Yamada, Kenji; Endo, Masayuki

PA JSR Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02F001-1339

ICS C08F002-00; C08F002-44; C08F002-46; C08F257-02; C08F265-00;  
C08F267-00; C08F279-02; C08F283-00; C08F290-06; C08F299-04;  
C08F299-06; C08K003-04; C08K003-22; C08K005-00; C08L051-00;  
G09F009-30

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001154206	A2	20010608	JP 1999-333642	19991125
PRAI	JP 1999-333642		19991125		

AB The compns. comprise (A) copolymers of unsatd. carboxylic acids or/and anhydrides, unsatd. group-contg. epoxy compds. and other unsatd. comonomers, (B) polymers bearing unsatd. groups, (C) radiation polymn. initiators and (D) colorants. Thus, heating styrene 20 with methacrylic acid 16, dicyclopentanyl methacrylate 19, .beta.-methylglycidyl methacrylate 45, .alpha.-methylstyrene dimer 3, AIBN 7, and propylene glycol monomethyl ether acetate 200 parts at 70.degree. for 5 h, and mixing the resulting polymer soln. (solids concn. 33.3%) 100 with Kayarad DPHA 100, Irgacure 369 (initiator) 25, carbon black 7, Disperbyk 182 (dispersant) 2 and .gamma.-glycidoxypropyltrimethoxysilane 5 parts gave a radiation-curable compn. which was spin-coated on a glass surface, dried, **photo**-mask-patterned with UV light and developed to give a spacer film of 5 .mu.m thickness with good light blocking property and resistance to heat and rubbing.

ST LCD display device spacer radiation curable resin compn; heat resistance liq crystal display spacer radiation curable resin

IT Carbon black, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(copolymer; radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT Polymerization catalysts

(**photopolymn.**; radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT Heat-resistant materials

Liquid crystal displays

(radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT Crosslinking

(radiochem.; radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT 147-14-8, C.I.Pigment Blue 15:4 4051-63-2, C.I. Pigment Red 177

RL: MOA (Modifier or additive use); USES (Uses)  
(Pigment; radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT 71868-10-5, Irgacure 907 119313-12-1, Irgacure 369

RL: CAT (Catalyst use); USES (Uses)  
(polymn. initiator; radiation-curable resin compns. and use in spacers of liq.-crystal display devices)

IT 264192-15-6P, dicyclopentanyl methacrylate-glycidyl methacrylate-Kayarad DPHA-methacrylic acid-styrene copolymer 307493-95-4P, Dicyclopentanyl methacrylate-Kayarad DPHA-methacrylic acid-.beta.-methylglycidyl methacrylate-styrene copolymer 342904-14-7P **342904-15-8P**

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
    (radiation-curable resin compns. and use in spacers of liq.-crystal  
    display devices)

L6 ANSWER 21 OF 26 CA COPYRIGHT 2003 ACS  
 AN 112:28179 CA  
 TI **Photosensitive** resin composition for solder mask  
 IN Tsukada, Katsushige; Hatsutori, Kenji; Tsucha, Katsunori; Fujii, Tadashi  
 PA Hitachi Chemical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08G059-50  
 ICS C08G059-32; G03C001-68  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01174521	A2	19890711	JP 1987-335087	19871228
PRAI	JP 1987-335087		19871228		
AB	The title compn. contains (a) an aq. alkali-sol. and water-insol. high-mol. <b>binder</b> , (b) an addn. product of triglycidyl isocyanurate and an unsatd. group-contg. monocarboxylic acid at acid/epoxy = 0.9-1.05 (equiv.), (c) an amino resin, and (d) a sensitizer and/or its system creating free radicals under irradiation of active ray. The compn. is useful for manufg. a printed circuit board. Thus, a compn. contg. acrylic acid-TEPIC G (triglycidyl isocyanurate) adduct, APG 700 (polypropylene glycol diacrylate), hexamethoxymethylmelamine, Bu acrylate-Me methacrylate-methacrylic acid copolymer, 2-methyl-1-[4-(methylthio)phenyl]- 2-morpholino-1-propanone, 2-isopropylthioxanthone, and 5-amino-1,3,4-thiadiazole-2-thiol was applied onto a Cu-clad laminate, irradiated, alkali-developed, washed, and heated to give a precisely patterned solder mask.				
ST	<b>photoresist</b> epoxy isocyanurate acrylic resin; solder mask isocyanurate acrylic resin; printed circuit board solder mask; methoxymethylmelamine <b>photoresist</b> solder mask				
IT	Heat-resistant materials ( <b>photoresist</b> , for solder mask, isocyanurate-contg. acrylic epoxy resins for)				
IT	Epoxy resins, uses and miscellaneous RL: USES (Uses) (acrylic, isocyanurate-contg., for solder mask, for printed circuit board)				
IT	Acrylic polymers, uses and miscellaneous RL: USES (Uses) (epoxy, isocyanurate-contg., for solder mask, for printed circuit board)				
IT	Resists ( <b>photo-</b> , isocyanurate-contg. acrylic epoxy resins, for solder mask)				
IT	Electric circuits (printed, boards, <b>photoresist</b> solder mask for, acrylic isocyanurate-contg. epoxy resin as)				
IT	52496-08-9, Polypropylene glycol diacrylate RL: USES (Uses) ( <b>photoresist</b> from, APG 700, for solder mask, for printed circuit board)				
IT	3089-11-0, Hexamethoxymethylmelamine 9003-08-1, Melan 523 25035-69-2 40220-08-4, FA 731A 110279-43-1 115202-60-3, 2-Hydroxyethyl methacrylate-tetrahydrofurfuryl methacrylate-methyl methacrylate- methacrylic acid copolymer 124449-64-5 124449-65-6, Acrylic acid-methacrylic acid-TEPIC S adduct 124517-50-6 RL: USES (Uses) ( <b>photoresist</b> from, for solder mask, for printed circuit board)				

IT 90-93-7, 4,4'-Bis(diethylaminobenzophenone) 2349-67-9,  
5-Amino-1,3,4-thiadiazole-2-thiol 5495-84-1, 2-Isopropylthioxanthone  
71868-10-5, 2-Methyl-1-[4-(methylthio)phenyl]-2-morpholino-1-propanone  
76293-13-5, 2,4-Dimethylthioxanthone  
RL: USES (Uses)  
(sensitizer, for **photoresist**, for solder mask)



L6 ANSWER 11 OF 26 CA COPYRIGHT 2003 ACS  
 AN 132:300944 CA  
 TI **Photosensitive** resin composition useful as insulating and solder  
 resist films  
 IN Satake, Masanori; Takayanagi, Takashi  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03F007-027  
 ICS G03F007-027; C08F002-50; C08F226-06; G03F007-033; C08F222-38;  
 C08F230-02  
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000112121	A2	20000421	JP 1998-284614	19981006
PRAI	JP 1998-284614		19981006		
AB	The title resin compn. contains (a) a copolymer. <b>binder</b> contg. .gtoreq.1 of the each structure unit (CH <sub>2</sub> CR <sub>1</sub> R <sub>2</sub> ) <sub>1</sub> , [CR <sub>6</sub> (CO <sub>2</sub> H)CR <sub>7</sub> (CONHR <sub>8</sub> )] <sub>m</sub> , and [CH <sub>2</sub> CR <sub>9</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OP(:O)(OR <sub>11</sub> )OR <sub>10</sub> )] <sub>n</sub> [R <sub>1</sub> , R <sub>6</sub> , R <sub>7</sub> , R <sub>9</sub> = H, C <sub>1</sub> -3 alkyl; R <sub>2</sub> = H, alkyl, aryl, CO <sub>2</sub> R <sub>3</sub> , CONR <sub>4</sub> R <sub>5</sub> (R <sub>3</sub> -5 = H, alkyl, aryl); R <sub>8</sub> = alkyl, aralkyl, aryl; R <sub>10</sub> , R <sub>11</sub> = C <sub>1</sub> -6 alkyl, C <sub>6</sub> -12 aryl] in a ratio of 10-60, 20-70, and 5-60 wt.%, resp., (b) a compd. having addn.-polymerizable ethylenic unsatd. groups in its mol., and (c) a <b>photopolymer</b> . initiator(s). The compn. suited for use in prodn. of printed circuits shows improved flame-proofing properties, adhesion to metal plating films, and mech. strength.				
ST	acryloyl phosphate maleic anhydride styrene copolymer; <b>photoresist</b> acryloyl phosphate copolymer				
IT	<b>Photoresists</b> (photoresist compn. contg. phosphate polymer)				
IT	100-46-9DP, Benzylamine, amides with maleic anhydride copolymer 108-91-8DP, Cyclohexylamine, amides with maleic anhydride copolymer 264199-64-6DP, Styrene-maleic anhydride-MR 260 copolymer, amides 264199-65-7DP, Acryloyloxyethyl diphenyl phosphate-maleic anhydride-styrene copolymer, amides 264199-67-9DP, Acryloyloxyethyl diphenyl phosphate-butyl acrylate-maleic anhydride-styrene copolymer, amides RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoresist compn. contg. phosphate polymer)				
IT	40220-08-4, Aronix M 315 77641-99-7, Kayarad DPHA 115753-22-5, Tris(acryloyloxyethyl)isocyanurate 120750-67-6, Kayarad R 712 264199-66-8 RL: TEM (Technical or engineered material use); USES (Uses) (photoresist compn. contg. phosphate polymer)				

L6 ANSWER 15 OF 26 CA COPYRIGHT 2003 ACS

AN 127:313206 CA

TI **Photosensitive** resin composition, **photosensitive** element using it, manufacture of phosphor pattern using the element

IN Nojiri, Takeshi; Tachiki, Hideyasu; Uehara, Hideaki; Mukai, Ikuo

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-033; G09F009-313; H01J009-227

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09244230	A2	19970919	JP 1996-50666	19960307
PRAI	JP 1996-50666		19960307		

AB The compn. contains (A) a cryst. vinyl polymer **binder** with crystg. temp. 30-120 .degree. manufd. by copolyng. a vinyl monomer CH<sub>2</sub>:CRCO<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>Me (R = H, Me; n = 12-24), (B) a thermoplastic polymer **binder**, (C) a **photopolymerizable** compd. terminated with an ethylenic unsatd. group, (D) a **photoinitiator** which generates free radicals by irradiating active energy beam, and (E) a phosphor. The element contains the compn.-contg. layer on a support film. The manuf. involves (1) adhering the compn. on a barrier rib-formaed plasma display substrate, (2) irradiating active energy beam to crosslink an unexposed domain, (3) removing the domain by developing, and (4) sintering. The compn. is useful for a light-emitting display such as a plasma display panel. The element shows prevention of edge fusion and good burying property.

ST **photosensitive** element methacrylate polymer phosphor; vinyl polymer **binder** **photosensitive** compn; phosphor pattern **photosensitive** element exposing; plasma display panel acrylate polymer **binder**

IT Phosphors

**Photoresists**

Plasma display panels

(manuf. of phosphor pattern using **photosensitive** resin compn. contg. cryst. (meth)acrylate polymer **binder**)

IT 7439-96-5, Manganese, uses 7440-53-1, Europium, uses

RL: MOA (Modifier or additive use); USES (Uses)

(activator; manuf. of phosphor pattern using **photosensitive** resin compn. contg. cryst. (meth)acrylate polymer **binder**)

IT 78-67-1, AIBN

RL: CAT (Catalyst use); DEV (Device component use); USES (Uses)

(manuf. of phosphor pattern using **photosensitive** resin compn. contg. cryst. (meth)acrylate polymer **binder**)

IT 109-17-1, Tetraethylene glycol dimethacrylate 13597-65-4, Zinc silicate

(Zn<sub>2</sub>SiO<sub>4</sub>) 15625-89-5, A-TMPT 40220-08-4, FA 731A 52496-08-9,

APG 400 71012-47-0, Barium magnesium aluminate (BaMgAl<sub>14</sub>O<sub>23</sub>)

124676-67-1, Gadolinium yttrium borate [(Gd, Y)BO<sub>3</sub>]

RL: DEV (Device component use); USES (Uses)

(manuf. of phosphor pattern using **photosensitive** resin compn.

contg. cryst. (meth)acrylate polymer **binder**)

IT 27791-81-7P, Acrylic acid-butyl acrylate-methacrylic acid-methyl

methacrylate copolymer 34306-75-7P, Methacrylic acid-methyl

methacrylate-stearyl acrylate copolymer 197307-35-0P, Ethyl

acrylate-methacrylic acid-methyl methacrylate-stearyl acrylate copolymer

RL: DEV (Device component use); IMF (Industrial manufacture); MOA

(Modifier or additive use); PREP (Preparation); USES (Uses)

(manuf. of phosphor pattern using **photosensitive** resin compn.

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
(polymer binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

IT 7440-50-8, Copper, properties 25038-59-9, PET polymer, properties

RL: DEV (Device component use); PRP (Properties); USES (Uses)  
(polymer binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

IT 471-34-1, Tunex E, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(water-sol. film contg., roughening insulation film surface with;  
polymer binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

IT 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Poly(vinyl pyrrolidone)  
9004-65-3, TC 5E

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process);  
USES (Uses)

(water-sol. film, roughening insulation film surface with; polymer  
binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

L6 ANSWER 5 OF 26 CA COPYRIGHT 2003 ACS

AN 135:108168 CA

TI Polymer binders having chain transfer groups and **photocurable**  
resin compositions containing them

IN Fujita, Akinori; Wakata, Yuichi; Satake, Masanori

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F010-00

ICS C08F012-00; C08F020-00; C08F022-38; C08L025-00; C08L033-00;  
C08L035-00; C08L043-02; G03F007-027; G03F007-033; H05K003-28;  
H05K003-46

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001200013	A2	20010724	JP 2000-9018	20000118
PRAI	JP 2000-9018		20000118		

AB The polymer binders, useful for insulators of printed circuit boards, etc., comprise repeating units of 10-80% CH<sub>2</sub>CR<sub>1</sub>R<sub>2</sub> (R<sub>1</sub> = H, C1-3-alkyl; R<sub>2</sub> = H, alkyl, aryl, CO<sub>2</sub>R<sub>3</sub>, CONR<sub>4</sub>R<sub>5</sub>; R<sub>3-5</sub> = H, alkyl, aryl) and 0.00001-40% CR<sub>6</sub>(CO<sub>2</sub>H)CR<sub>7</sub>(CONHR<sub>9</sub>) (R<sub>6</sub>, R<sub>7</sub> = H, C1-3-alkyl; R<sub>9</sub> = alkyl, aralkyl, aryl contg. chain transfer groups). Thus, styrene-maleic anhydride (I)-methacryloyloxyethyl diphenyl phosphate (MR 260) copolymer was reacted with 0.9995 mol (based on 1 mol I) benzylamine and 0.0005 mol (based on 1 mol I) aminoethanethiol, mixed with tris[2-(acryloyloxy)ethyl] isocyanurate (Aronix M 315) and other polyfunctional acrylic monomers (Kayarad DPHA, Kayarad R 712), applied on a PET film, laminated on a Cu-clad board, covered with a microparticle-contg. water-sol. resin film, **photo**-cured, washed with 0.5% sodium bicarbonate aq. soln., and Cu-plated to give a printed circuit board showing adhesion strength of the Cu layer 0.81 kg/cm, breaking strength 720 kg/cm<sup>2</sup>, elongation 14%, and UL 94 fire resistance rating V0.

ST chain transfer **binder photocurable** elec insulator;  
benzylamine aminoethanethiol maleic anhydride polymer fireproofing;  
acryloyloxyethyl isocyanurate polymer printed circuit board

IT Printed circuit boards  
(multilayer; polymer binders having chain transfer groups for  
fireproofing **photocurable** elec. insulating resin compns.)

IT Binders  
Electric insulators  
(polymer binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

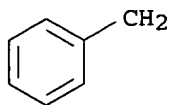
IT Polyesters, properties  
RL: DEV (Device component use); PRP (Properties); USES (Uses)  
(polymer binders having chain transfer groups for fireproofing  
**photocurable** elec. insulating resin compns.)

IT 40220-08-4, Aronix M 315 77641-99-7, Kayarad DPHA 120750-67-6,  
Kayarad R 712 264199-66-8

RL: MOA (Modifier or additive use); USES (Uses)  
(fireproofing **photocurable** elec. insulating resin compns.  
comprising polymer binders having chain transfer groups and addn.  
polymerizable compds.)

IT 60-23-1DP, reaction products with styrene-maleic anhydride-based polymers  
100-46-9DP, Benzylamine, reaction products with styrene-maleic  
anhydride-based polymers 9011-13-6DP, Maleic anhydride-styrene  
copolymer, reaction products with benzylamine, aminoethanethiol, and  
aminocyclohexanethiol 264199-64-6DP, maleic anhydride-MR 260-styrene  
copolymer, reaction products with benzylamine, aminoethanethiol, and  
aminocyclohexanethiol 350247-90-4DP, reaction products with  
styrene-maleic anhydride-based polymers

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 2154-56-5 REGISTRY  
CN Methyl, phenyl- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN **Benzyl** (6CI, 8CI)  
OTHER NAMES:  
CN Benzyl radical  
CN Phenylmethyl  
DR 12552-69-1  
MF C7 H7  
CI COM  
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,  
CIN, DETHERM\*, GMELIN\*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT,  
TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)



1025 REFERENCES IN FILE CA (1957 TO DATE)  
38 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1025 REFERENCES IN FILE CAPLUS (1957 TO DATE)  
36 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

AN 86:99090 CA  
 TI **Photosensitive** dry transfer material  
 IN Steelman, Ronald S.; Larkins, Rodney J.  
 PA Minnesota Mining and Mfg. Co., USA  
 SO Ger. Offen., 33 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC G03C001-90  
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2551216	A1	19760526	DE 1975-2551216	19751112
	DE 2551216	C2	19841018		
	DE 2551216	C3	19890720		
	CA 1037311	A1	19780829	CA 1975-238453	19751028
	SE 7512264	A	19760514	SE 1975-12264	19751103
	SE 447426	B	19861110		
	SE 447426	C	19870219		
	FR 2291527	A1	19760611	FR 1975-34407	19751112
	FR 2291527	B1	19830401		
	JP 51071124	A2	19760619	JP 1975-136146	19751112
	JP 60009247	B4	19850308		
	AU 7586531	A1	19770519	AU 1975-86531	19751112
	CH 613055	A	19790831	CH 1975-14667	19751112
PRAI	US 1974-523430		19741113		

AB A light-sensitive dry-transfer element is described which consists of a thin, flexible, transparent film support, a release undercoating, and a light-sensitive top coating composed of an addn. polymerizable, nongas-forming, ethylenically unsatd. compd., a free radical-forming **photoinitiator**, and a **binder**. A protective top layer may also be added. After exposure of the material, the nonimage areas are removed and the material is then contacted under pressure with a receptor sheet to transfer the image areas. Thus, a transparent polyester sheet was coated with a dispersion contg. Mold Wiz PS-259 75, Vidax AR 10, polyethylene glycol 0.5, and trichloroethylene 50 g at a dry wt. of 120 mg/929 cm<sup>2</sup>. A light-sensitive layer was then prepd. by ball-milling Gelva C5V16 8.7, carbon black 1.62, EtOH 9.8, and MeCOEt 17.4 g and adding to a soln. contg. pentaerythritol tetraacrylate 3.5, tris(2-hydroxyethyl) isocyanate triacrylate 11.9, Daraktak 74L 12.9, Pycal 94 1.9, FC-430 0.24, 2-(p-methoxystyryl)-4,6-bis(trichloromethyl)-s-triazine 0.42, and MeCOEt 31.0 g, and then coated on the release layer of the support at a dry wt. of 2.5 g/929 cm<sup>2</sup>. A top coating composed of Gelvatol 20-30 78, water 70, and MeOH 23 g was added. The finished material was then exposed through a neg., developed with a 1% aq. Na silicate, and then contacted with a receptor sheet under pressure to transfer the developed image.

ST **photosensitive** dry transfer sheet

IT Rubber, silicone, uses and miscellaneous  
 Silica gel, uses and miscellaneous  
 Siloxanes and Silicones, uses and miscellaneous  
 RL: USES (Uses)

(coatings, release, for **photosensitive** dry transfer materials)

IT Acrylic polymers, uses and miscellaneous  
 Carbon black, uses and miscellaneous  
 Rubber, polysulfide  
 RL: USES (Uses)

(**photosensitive** compns. contg., for dry transfer sheet)

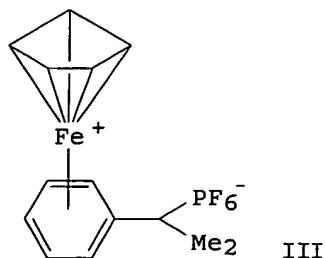
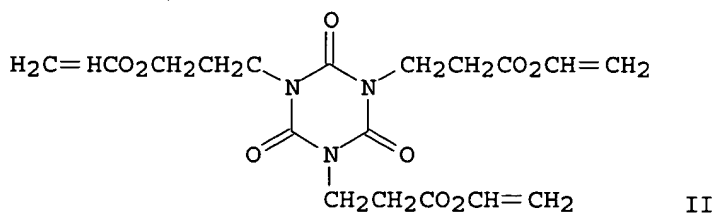
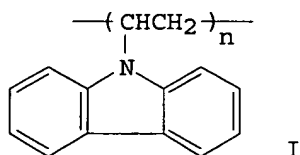
IT Vinyl acetal polymers  
 RL: USES (Uses)

(butyrals, **photosensitive** compns. contg., for dry transfer sheet)

IT Transfers  
    (dry, **photosensitive** materials for)  
IT 9004-62-0  
    RL: USES (Uses)  
        (coatings, protective, for **photosensitive** dry transfer sheet)  
IT 9004-67-5 25322-68-3 60476-58-6 62046-62-2  
    RL: USES (Uses)  
        (coatings, release, for **photosensitive** dry transfer  
          materials)  
IT 84-11-7 131-56-6 2395-97-3 3290-92-4 4392-68-1 4986-89-4  
    8047-99-2 9004-36-8 9041-09-2 11114-17-3 25154-86-3 25322-68-3  
    25609-89-6 28158-16-9 **40220-08-4** 42573-57-9 53124-92-8  
    57904-03-7 62046-54-2 62046-59-7  
    RL: USES (Uses)  
        (**photosensitive** compns. contg., for dry

L5 ANSWER 21 OF 27 CA COPYRIGHT 2003 ACS  
 AN 116:265701 CA  
 TI Holography **photosensitive** material containing methacrylate compound  
 IN Sugawara, Satoko  
 PA Nissan Motor Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM G03H001-02  
 ICS G03F007-027; G03F007-029; G03F007-033  
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04013172	A2	19920117	JP 1990-115277	19900502
PRAI	JP 1990-115277		19900502		
GI					



AB The material contains poly(vinyl carbazol) binder I (n = 600,000-1,000,000), methacrylate compd. II, and Fe-arene complex polyimg.-initiator. The material may contain ketocoumarin dye sensitizer. The material was suitable for film formation.  
 ST holog **photosensitive** methacrylate; arene iron polymn initiator **photosensitive** holog; coumarin sensitizer **photosensitive** holog  
 IT Holography  
 (photosensitive materials for, contg. methacrylate and iron-arene polymn.-initiator)  
 IT 25067-59-8  
 RL: USES (Uses)



(**Photosensitive** holog. material binder)  
IT 42033-33-0  
RL: USES (Uses)  
(**photosensitive** holog. material contg.)  
IT 32760-74-0  
RL: USES (Uses)  
(polymn. initiator, **photosensitive** holog. material contg.)  
IT 63226-13-1  
RL: USES (Uses)  
(sensitizer, **photosensitive** holog. material contg.)

L5 ANSWER 13 OF 19 CA COPYRIGHT 2003 ACS  
 AN 108:205782 CA  
 TI Thermosetting compositions  
 IN Nakajima, Hiroyuki; Miyamoto, Fumiyuki; Oka, Seiji; Doi, Makoto; Chidai, Hideki  
 PA Mitsubishi Electric Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08F297-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63015812	A2	19880122	JP 1986-162534	19860708
PRAI	JP 1986-162534		19860708		

AB Thermosetting compns. with low viscosity and long pot life, useful for impregnation, and giving cured products with good mech. strengths are prepd. from 5-200 parts compds. contg. .gtoreq.3 (meth)acrylic or allyl groups, 30-150 parts liq. cyclic acid anhydrides, and 100 parts reaction products from carboxy-terminated polybutadienes (.gtoreq.50 mol% 1,2-linkage) and epoxy compds. at epoxy/carboxy equiv. ratio 1.2-15. Thus, mixing 530 parts Nisso-PB-C1000 (carboxy-terminated polybutadiene) and 760 parts Epikote 828 at 150.degree. for 2 h gave an epoxy-modified polybutadiene, 100 parts of which was then mixed with tris(hydroxyethyl) isocyanurate triacrylate 150, phenoxy resin (no-av. mol. wt. 45000) 108, HN-2200 50, styrene 100, di-tert-Bu peroxide 2, and Zn octanoate 1 part to give a compn. with initial viscosity 100 cP (at 25.degree.) and pot life >6 mo, vs. >1 mo for 100:85 Epikote 828-HN 2200. Heating the compn. at 110.degree. for 5 h and 150.degree. for 16 h gave a cured product showing flexural strength 11.5 kg/mm<sup>2</sup>, wt. loss after 16 days at 200.degree. 1.0% and dielec. tangent at 100.degree. <1%.

ST thermoplastic polybutadiene epoxy resin blend; pot life polybutadiene epoxy resin; acrylate blend polybutadiene epoxy resin; anhydride blend polybutadiene epoxy resin

IT Epoxy resins, uses and miscellaneous  
 RL: USES (Uses)  
 (phenoxy, thermosets contg. epoxy-modified polybutadienes and cyclic acid anhydrides and vinyl compds. and, for impregnation with good workability)

IT Epoxy resins, uses and miscellaneous  
 RL: USES (Uses)  
 (polybutadiene-, block, thermosets contg. cyclic acid anhydrides and vinyl compds. and, for impregnation with good workability)

IT Plastics  
 RL: USES (Uses)  
 (thermosetting, reaction products of carboxy-terminated polybutadienes and epoxy resins and vinyl compds and cyclic acid anhydrides, for impregnation with good workability)

IT 100-42-5, Styrene, uses and miscellaneous 2694-54-4 40220-08-4  
 RL: USES (Uses)  
 (thermosets contg. epoxide-modified polybutadienes and cyclic acid anhydride and, for impregnation with good workability)

IT 25013-15-4, Vinyltoluene  
 RL: USES (Uses)  
 (thermosets contg. epoxide-modified polybutadienes and cyclic acid anhydrides and, for impregnation with good workability)

IT 38497-16-4, HN-2200  
 RL: USES (Uses)  
 (thermosets contg. epoxide-modified polybutadienes and vinyl compds. and, for impregnation with good workability)

IT 102135-69-3, EOCN 1025  
 RL: USES (Uses)

(thermosets contg. epoxy-modified polybutadienes and cyclic acid anhydrides and vinyl compds. and, for impregnation with good workability)

IT 25068-38-6D, Epikote 828, reaction products with carboxy-terminated polybutadiene 25085-99-8D, DER 332, reaction products with carboxy-terminated polybutadiene

RL: USES (Uses)

(thermosets contg. vinyl compds. and cyclic acid anhydrides and, for impregnation with improved workability)

contg. cryst. (meth)acrylate polymer **binder**)